

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of: **Dutta et al.** §
Serial No. **09/820,508** § Group Art Unit: **2176**
Filed: **March 29, 2001** § Examiner: **Maikhanh Nguyen**
For: **Presentation of Salient Features in** §
a Page to a Visually Impaired User §

Commissioner for Patents
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PATENT TRADEMARK OFFICE
CUSTOMER NUMBER

REPLY BRIEF (37 C.F.R. 41.41)

This Reply Brief is submitted in response to the Examiner's Answer mailed on December 5, 2006.

No fees are believed to be required to file a Reply Brief. If any fees are required, I authorize the Commissioner to charge these fees which may be required to IBM Corporation Deposit Account No. 09-0447.

RESPONSE TO EXAMINER'S ANSWER

I. Status of Appeal

In a Final Office Action dated March 23, 2005, the Examiner rejected Claims 1-2, 4-11, 18 and 25-27 as being obvious under 35 U.S.C. § 103(a), in view of the *Kiraly* et al. patent combined with U. S. Patent No. 5,586,196, to *Sussman*. Claims 13, 15-17, 19-23 and 33-34 were rejected under 35 U.S.C. § 102(e), as being anticipated by *Kiraly*. In response to this Final Office Action, Appellants filed a Notice of Appeal on June 23, 2005, and filed a corresponding Appeal Brief on August 19, 2005.

On November 21, 2005, the Examiner mailed an Office Action, whereby prosecution in the above application was reopened. In such Office Action, *Sussman* was apparently withdrawn as a reference against Appellants' claims. However, Claims 1-2, 4-11, 18 and 25-27 were rejected under 35 U.S.C. § 103(a) as being obvious in view of the *Kiraly* patent alone. Claims 13, 15-17, 19, 21-23 and 33-34 were rejected under 35 U.S.C. § 102(e) as being anticipated by *Kiraly*. In view of these rejections in the Office Action of November 21, 2005, Appellants filed a Supplemental Appeal Brief on April 21, 2006, requesting reinstatement of the Appeal. On August 11, 2006 Appellants filed a Replacement Supplemental Appeal Brief (hereinafter "Replacement Brief").

On October 31, 2006, an Examiners' Answer was mailed in the Appeal. On December 5, 2006, a Supplemental Examiner's Answer (hereinafter "Answer") was mailed in the Appeal.

II. Teaching and Purpose of Appellants' Claim 1

Independent Claim 1 reads as follows:

1. A method in a data processing system for presenting content in a document, the method comprising the steps of:

 parsing the document for one or more salient features that collectively provide an overview of the document;

 initially presenting the document overview to a user in a manner other than visually, the presented overview comprising only the collective salient features and excluding any other portions of the document; and

 presenting a particular one of the other document portions to the user only in response to a request from the user for the particular portion.

In reciting Claim 1, Appellants sought to make network resources, such as the World Wide Web of the Internet, available to visually impaired persons. While Claim 1 applies to users generally, Appellants were particularly concerned with persons who were blind or otherwise required to rely exclusively on audio communication tools, such as Home Page Reader (HPR) or other talking Web browsers. Appellants recognized that with such tools, users who are blind generally cannot be provided with a brief, readily useable summary or overview of web pages. This, of course, is a disadvantage not encountered by those who can visually read or inspect web pages. These concerns of Appellants are set forth in their specification, such as at page 3, lines 3-30 and at page 4, lines 1-4.

Claim 1 recites a method that addresses the above needs of the visually impaired. For convenience and brevity, respective steps of Claim 1 are referenced hereinafter as Steps (1), (2) and (3). Such nomenclature is to be understood to mean the following:

Step (1): Parsing the document for one or more salient features that collectively provide an overview of the document.

Step (2): Initially presenting the document overview to a user in a manner other than visually, the presented overview comprising only the salient features and excluding any other portions of the document.

Step (3): Presenting a particular one of the other document portions to the user only in response to a request from the user for the particular portion.

III. Complete and Entire Teachings of *Kiraly* Must Be Considered

The Answer, in addition to reiterating portions of the Office Action mailed November 21, 2005, sets forth arguments on pages 12-17, grouped into Paragraphs a.-e. These arguments are apparently directed to Appellants' Claim 1, and to statements made by Appellants in their Replacement Brief. The arguments cite sections of *Kiraly* at col. 2, lines 42-52; col. 6, lines 32-38; col. 9, lines 23-34; col. 10, lines 52-65; col. 11, lines 3-12; and elements of Figures 3 and Figure 4. Appellants consider that Paragraphs a.-e. of the Answer are best responded to by addressing the teachings of each of these cited sections of *Kiraly*, together with other related sections of *Kiraly* and the pertinence thereof, to Appellants' Claim 1.

It is a fundamental principle that a prior art reference must be considered in its entirety, i.e., as a whole, including portions that would lead away from the claimed invention. A further principle is that all words in a claim must be considered, in judging the patentability of the claim against the prior art. **MPEP 2143.03**

IV. *Kiraly Teaches Away From Step (1) of Claim 1*

The *Kiraly* reference fails to disclose the recitation of Step (1) of Claim 1 in its entirety. That is, *Kiraly* fails to show or suggest parsing the document for one or more salient features that collectively provide an overview of the document. This is demonstrated, for example, by the *Kiraly* method as taught at representative sections col. 2, lines 33-57, and col. 7, lines 10-15. The cited section of *Kiraly* at col. 2, lines 42-52 is, of course, included in these sections. From statements in these sections, such as at col. 7, lines 11-12, it is clear that *Kiraly* teaches an arrangement wherein every word of displayed text-based data is highlighted “one word at a time, and sequentially until all the words of the document have been highlighted”. (Emphasis added). Highlighted words are also represented by synthesized speech signals. At col. 2, lines 40-42, *Kiraly* likewise teaches sequentially highlighting the text-based data, “one word at a time”.

Clearly, these representative teachings, which emphasize the principal focus of *Kiraly*, do not disclose or suggest the Step (1) recitation of parsing a document for one or more salient features. *Kiraly* does not teach parsing a document, that is, breaking it down into constituent elements, in order to locate or identify the salient, or prominent, features of the document. Rather, *Kiraly* teaches presenting every word in a document, in sequential order, by means of highlighting and synthesized speech. Moreover, the above sections of *Kiraly* fail to teach the further recitation of Appellants’ Step (1), of parsing a document for one or more salient features that collectively provide an overview, or summary, of the document. The *Kiraly* arrangement in fact, in requiring that every word in a document is to be selected, clearly teaches away from providing an overview of the document, as recited by Step (1) of Claim 1.

The cited section of *Kiraly* at col. 9, lines 23-34, together with elements of Figure 4, further emphasizes and supports the above teachings, that is, that *Kiraly* sequentially provides a document in its entirety. For example, at col. 9, lines 23-34, together with col. 9, lines 35-44 and Figure 4, *Kiraly* teaches that items 420 and 430 analyze the entire text-based data source in preparation for highlighting and speech output. These sections describe preparation for sequential highlighting of successive portions of a document, such as word by word or phrase by phrase. Clearly, this preparation activity neither teaches nor suggests that any word or phrase is to be treated with more prominence or importance, or even differently, than any another. Thus, these sections of *Kiraly*, in like manner with those previously discussed, do not teach or suggest

parsing a document for salient features, nor taking such action in order to collectively provide a document overview. Accordingly, these sections of col. 9 likewise fail to disclose key features of Step (1) of Appellants' Claim 1.

The cited section of *Kiraly* at col. 6, lines 32-38 is contained in a paragraph at col. 6, lines 20-38. This paragraph, in its entirety, reads as follows:

In operation, the text-reader software of the present invention accesses a source of text-based data, displays a text document in a text window 320 using preselected standard font size, and displays a portion of the same text document in an another text window 310 using a preselected magnified font size. The text-reader software of the present invention then electronically reads the text document (or "file") aloud one word at a time through speakers 210. Significantly, the text-reader software of the present embodiment highlights each of the words as each word is electronically enunciated using a speech synthesizer. In the present embodiment, only portions of the text-based data are displayed on the text windows 310 and 320 at a time. Therefore, in the present embodiment, the text-reader software automatically displays portions of the text-based data containing the word that is currently being read aloud. Moreover, the text-reader software automatically scrolls the text-based data to display the appropriate portions in text windows 310 and 320 as the document is being automatically read. **[*Kiraly*, col. 6, lines 20-38]** **(emphasis added)**

The above paragraph yet again stresses the essential teachings of *Kiraly*, that an entire document is to be read through sequentially. More particularly, text reader software automatically scrolls through the document, as portions of the document are sequentially displayed, and the document is automatically read "aloud one word at a time". It is readily apparent that this section of *Kiraly* likewise fails to show or suggest parsing a document for salient features that collectively provide an overview of the document, as recited by Step (1) of Claim 1. Moreover, if the *Kiraly* arrangement was modified in accordance with Step (1), it would not be able to operate in accordance with the teachings of col. 6, lines 20-38. Instead of reading through and displaying an entire document, it could only provide certain features that were included in an overview. Thus, this section of *Kiraly* likewise teaches away from Step (1) of Appellants' Claim 1.

Paragraph c. of the Answer is as follows:

c. Appellants argue that the *Kiraly* does not teach parsing a document for one or more salient features that collectively provide an overview of the document (page 16).

In response, as discussed in (a) and (b) above, *Kiraly* does meet the claim limitations.

Paragraph c. is the only one of the Paragraphs a.-e. that refers to Step (1) of Appellants' Claim 1 in its entirety. However, Paragraph c. merely points to Paragraphs a. and b. Paragraph a. is directed to just a portion of Step (1), that is, parsing a document for one or more salient features, whereas Paragraph b. is directed only to a portion of Step (2) of Claim 1. Thus, none of the Paragraphs a.-e. show where the *Kiraly* reference indicates the complete recitation of Step (1), that is, parsing a document for one or more salient features that collectively provide an overview of the document.

V. Kiraly Teaches Away From Step (2) of Claim 1

Step (2) of Claim 1 recites initially presenting the document overview to a user in a manner other than visually, the presented overview comprising only the salient features and excluding any other portions of the document. Clearly, since the *Kiraly* reference neither shows nor suggests provision of an overview of a document, such reference also fails to show the Step (2) teaching of initially presenting only the overview to a user in a non-visual manner. Moreover, the emphasis of *Kiraly* in sequentially presenting an entire document, as discussed above in connection with cols. 2, 6 and 9 of *Kiraly*, teaches away from the Step (2) recitation of excluding any other portion of the document.

Paragraph d. of the Answer, directed to Step (2) of Claim 1, cites the section of *Kiraly* at col. 10, lines 52-65. However, at col. 10, lines 53-57 and col. 10, lines 62-67, *Kiraly* clearly states that images pertaining to highlighted text "are simultaneously displayed" with the text and with appropriate audio signals. For example, both the sound and an image of an eagle could be rendered synchronously with highlighting the textual word "eagle".

It is readily apparent that the several elements described at col. 10, lines 52-67 neither comprise, nor are intended to comprise, an overview or summary of a document associated with the elements. Rather, as taught by *Kiraly* at col. 9, lines 23-34 and Figure 4, the elements discussed at col. 10, lines 52-67 are simply rendered during the *Kiraly* process, wherein different portions of text-based data are sequentially presented.

The section of *Kiraly* at col. 2, lines 33-57 likewise directs away from Step (2) of Claim 1. As discussed above, this section teaches "sequentially highlighting the text-based data in one or both text windows one word at a time" (emphasis added). Thus, an essential teaching of this

section of *Kiraly* is that synthesized speech signals must be sequentially generated, since they need to be representative of the sequentially highlighted text-based data. In contrast, Step (2) requires initially presenting an overview of a document to a user that comprises only the collective salient features of the document, and excludes any other document portion. However, for many or most documents, the salient features required to provide an overview of the document will not occur sequentially. Thus, for such documents the *Kiraly* arrangement would have to be substantially modified, in order to operate according to the recitation of Step (2) of Claim 1. Specifically, synthesized speech signals would have to be generated that were not representative of the sequentially highlighted text-based data. This, of course, would depart substantially from the teachings of *Kiraly*. Moreover, it is well understood that a reference cannot support *prima facie* obviousness against a claim, if the principle of operation of the reference would have to be substantially modified in order to read on the claims. **MPEP 2143.01.**

In Paragraph d. of the Answer, it was asserted that the term “salient features” is not defined in Claim 1. However, this term is clearly exemplified in Appellants’ specification, at page 13, line 23 through page 14, line 2. This section of the application, which may be used in interpreting claim language, reads as follows:

The processes of the present invention may be implemented within language interpretation 412 to identify salient features in a document. Salient features may include, for example, bold text, italicized text, underlined text, text in a selected color, and text having a certain font size. When implemented within language interpretation 412, these features are extracted from the document for presentation to a visually impaired user. This presentation may take the form of an audio presentation of the summary or a physical tactile presentation, such as generating a Braille version of the summary. [*Specification, page 13, line 23 – page 14, line 2*]

The application thus provides clear examples of salient features that may be acquired from a document, in order to provide a summary or overview thereof.

VI. *Kiraly Teaches Away From Step (3) of Claim 1*

Paragraph e. of the Answer is apparently directed to Step (3) of Claim 1, and cites sections of *Kiraly* at col. 2, lines 42-52 and col. 6, lines 32-38, which were addressed above. Paragraph e. also cites col. 11, lines 3-12, which reads as follows:

With reference still to FIG. 4, at step 470, the text-reader software determines whether all the words in the selected portion of the document have been read aloud. If it is determined that all the words have been read aloud, or if it is determined that a user has stopped the text-reader software, the process 400 returns. Otherwise, the text-reader software automatically selects a next section of the document (e.g. next word or next phrase), and the process is repeated. [Kiralyn, col. 11, lines 3-12] (emphasis added)

Step (3) of Claim 1 recites presenting a particular one of the other document portions to the user only in response to a request from the user for the particular portion. Accordingly, Step (3) requires positive action by a user, in order to receive any further portions of a document, following the overview. However, the above section of *Kiralyn*, at col. 11, lines 3-12, explicitly requires positive action by a user to prevent receiving further document portions. If a user does not positively stop the text-reader, and the text-reader has not yet finished reading all the words of a document, the text-reader software will automatically select the next section of the document for presentation. Thus, to the extent that *Kiralyn* at col. 11, lines 3-12 is relevant to Step (3) of Appellants' Claim 1, such section of *Kiralyn* teaches a principle, and a result of user action, that is diametrically opposed to an essential principle of Step (3).

VII. Remainder of Answer

Further statements in the Answer in regard to pending Claims 1-2, 4-11, 13, 15-19, 21-23, 25-27 and 33-34, in addition to the comments set forth in Paragraphs a.-e., substantially reiterate statements made in the Office Action mailed November 21, 2005. Such statements are thoroughly addressed by respective comments set forth in Appellants' Replacement Brief, which are incorporated herein by reference.

CONCLUSION

In view of the comments set forth above, Appellants respectfully submit that the rejections of Claims 1-2, 4-11, 13, 15-19, 21-23, 25-27 and 33-34 are overcome. Accordingly, it is respectfully urged that the rejection of Claims 1-2, 4-11, 13, 15-19, 21-23, 25-27 and 33-34 not be sustained.

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